SECTION O SUBPART CC AIR EMISSIONS STANDARDS

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Appendix

O-1 CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATION

SECTION O – SUBPART CC AIR EMISSIONS STANDARDS

O-1 SUBPART CC AIR EMISSION STANDARDS [40 Code of Federal Regulations {CFR} §270.14(a), 270.27 and 264.1080(a)-(d) (with the exception of the modification noted in Kansas Administrative Regulations {KAR} 28-31-264]

Kansas hazardous waste program regulations contained in 40 CFR Part 264, Subpart CC apply to large quantity generators (LQG) of hazardous waste. The standards found in Subpart CC apply to hazardous waste with volatile organic compounds (VOC) concentration that exceeds 500 parts per million by weight (ppmw) managed in containers. D&Z stores all their hazardous waste with VOC concentrations that exceed 500 ppmw in 55-gallon steel containers. The containers meet the Container Level 1 controls (containers smaller than 122 gallons that are Department of Transportation-approved). In addition, D&Z maintains covers and closure devices on the containers in a closed position unless adding or removing waste from the containers.

APPENDIX O-1 CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATION

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS SECTION O. SUBPART CC AIR EMISSION STANDARDS See Attached Section and Federal Review Location in Comment Requirement Regulation Consideration^a Application^b **Number**^c O-1Standards Apply to All Facilities That Treat, 270.14(a): 270.27: Exclusions from 264.1080(a) are listed at 264.1080(b) Section O-1 Store, or Dispose of Hazardous Waste in Tanks, (e.g., a container that has a design capacity less than or 264.1080 (a) - (d) Surface Impoundments, or Containers Subject equal to 0.1 cubic meters [m3]). to 264, Subparts I, J, or K, Except as Provided Otherwise Following is a List of Units that are Exempt 270.14(a); 270.27; O-2NA from the 264.1084-264.1087 Standards: 264.1082(c) O-2a A Tank, Surface Impoundment, or Container for 270.14(a); 270.27; Waste determination procedures are specified at 264.1083. Which All Hazardous Waste Entering the Unit 264.1082(c)(1) Has an Average Volatile Organic Concentration at the Point of Waste Origination of less than 500 Parts per Million by Weight (ppmw) A Tank, Surface Impoundment, or Container for 270.14(a); 270.27; Waste determination procedures are specified at O-2b NA Which the Organic Content of all the Hazardous 264.1082(c)(2) 265.1084(b)(2)-(b)(9). Waste Entering the Waste Management Unit has been Reduced by an Organic Destruction or Removal Process that Achieves Specified Criteria A Tank Used for Biological Treatment of 270.14(a); 270.27; Waste determination procedures are specified at O-2c NA Hazardous Waste that Destroys or Degrades the 264.1082(c)(3) 264.1083(b) and 264.1083(a). Organics Contained in the Hazardous Waste such that the Requirements of 264.1082(c)(2)(iv) are Met A Tank, Surface Impoundment or Container for 270.14(a); 270.27; Waste determination procedures are specified at Part 268. O-2d NA Which all Hazardous Waste Placed in the Unit 264.1082(c)(4) Meets Applicable Organic Concentration Limits or has been Treated by Appropriate Treatment Technology O-2e A Tank Located Inside an Enclosure Vented to 270.14(a); 270.27; Design and operation of the control device and enclosure NA a Control Device that is Used for Bulk Feed of 264.1082(c)(5) shall satisfy Part 61, Subpart FF; 52.741, Appendix B; and Hazardous Waste to a Waste Incinerator that other conditions as specified. Meets Specified Criteria 270.14(a); 270.27; In general, an owner or operator need not undergo waste O-3Several Waste Determination Procedures are NA determination procedures unless they are pursuing an 264.1083; Explained in Detail and Must be Followed in Order to Demonstrate the Various Subpart CC 265.1084 exemption from the Subpart CC regulations. Exemptions and/or Control Requirements

Checklist Revision Date (December 1997)

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS SECTION O. SUBPART CC AIR EMISSION STANDARDS

	Section and Requirement	Federal Regulation	Review Consideration ^a	Location in Application ^b	See Attached Comment Number ^c
O-4	Tanks that Satisfy the Conditions at 264.1084(b)(1)(i-iii) Can Use Tank Level 1 or Tank Level 2 Controls. Tanks that do not Satisfy Conditions Shall Use Tank Level 2 Controls	270.14(a); 270.27; 264.1084(b)(1), (2)		NA	
O-5a	The Conditions at 264.108(b)(1)(i-iii) Provide that Hazardous Waste in the Tank Shall:	270.14(a); 270.27; 264.1084(b)(1)		NA	
O-5a(1)	Have Maximum Organic Vapor Pressure Which is less than Maximum Organic Vapor Pressure Limit for Tank's Design Capacity Category	270.14(a); 270.27; 264.1084(b)(1)(i)		NA	
O-5a(2)	Not be Heated to Temperature Greater than Temperature at Which Maximum Organic Vapor Pressure of Waste is Determined for Purposes of Compliance	270.14(a); 270.27; 264.1084(b)(1)(ii)		NA	
O-5a(3)	Not be Treated Using a Waste Stabilization Process, as Defined in 265.1081	270.14(a); 270.27; 264.1084(b)(1) (iii)	A waste stabilization process includes mixing hazardous waste with binders or other materials, and curing resulting hazardous waste and binder mixture.	NA	
O-5b	Maximum Organic Vapor Pressure Determination	270.14(a); 270.27; 264.1084(c) (1)	Must be determined before first time waste placed in tank, and retested whenever changes could cause it to increase above the maximum vapor pressure limit [264.1084(b)(1)(i)].	NA	
O-5b(1)	Tank Level 1. Owner/Operator Shall Equip Tanks with Fixed Roof and Closure Devices as Needed	270.14(a); 270.27; 264.1084(c) (2), (3)	Fixed roof/closure devices shall form continuous barrier over entire waste in tank; contain no visible open spaces between roof section joints or between interface of roof edge and tank wall; contain openings with closure devices or closed-vent system; and be made of suitable materials.	NA	
O-5b(2)	Tank Level 2. Owner/Operator Shall Use One of the Following Tanks:	270.14(a); 270.27; 264.1084(d)		NA	
O-5b(2)(i)	Fixed Roof Tank Equipped with Internal Floating Roof	270.27(a)(1); 264.1084(d)(1) (e)	Internal floating roof shall be designed to float on liquid surface, except when supported by leg supports; be equipped with continuous seal between tank wall and floating roof edge; and meet other design specifications.	NA	
O-5b(2)(ii)	Tank Equipped with an External Floating Roof	270.27(a)(1); 264.1084(d)(2), (f)	External floating roof shall be designed to float on all liquid surface, except when supported by leg supports; be equipped with two continuous seals; and meet other design specifications.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS SECTION O. SUBPART CC AIR EMISSION STANDARDS See Attached Section and Federal Review Location in Comment Requirement Regulation Consideration^a Application^b Number^c Tank Vented Through Closed-Vent System to a 270.14(a); 270.27; Fixed roof/closure devices shall form continuous barrier O-5b(3) NA 264.1084(d)(3), Control Device over entire liquid surface; be made of suitable materials; and satisfy 264.1087 standards. (g) 270.14(a); 270.27; Tank shall be designed not to bend to atmosphere as result NA O-5c Pressure Tank 264.1084(d)(4), of compression of vapor headspace in tank, and be equipped with closure devices as needed. (h) 270.14(a); 270.27; Tank shall be located in enclosure that is vented through O-5d Tank Located Inside an Enclosure that is NA closed vent system to enclosed combustion device, and Vented Through a Closed-Vent System to an 264.1084(d)(5), **Enclosed Combustion Control Device** enclosure shall be equipped with safety devices as needed. (1) 270.14(a); 270.27; Tank Level 1. Owner/Operator Shall: O-5e NA 264.1084(c) (1),(3)270.14(a); 270.27; Maximum organic vapor pressure shall be determined Determine Maximum Organic Vapor Pressure O-5e(1)NA for Hazardous Waste Initially and Whenever 264.1084(c)(1) using 264.1083(c) procedures. Changes could Cause the Vapor Pressure to Increase Above the Maximum Organic Vapor Pressure Limit Ensure that, Whenever Hazardous Waste is in O-5e(2)Exceptions are listed at 264.1084(c)(3)(i-iii). NA Tank, the Fixed Roof is Installed with Each Closure Device Secured in Closed Position O-5e(3) 270.14(a); 270.27; NA Inspect the Air Emission Control Equipment 264.1084(c)(4)270.14(a); 270.27; O-5f Tank Level 2. Owner/Operators Shall Adhere NA to the Following Operating Procedures for Each 264.1084(e)(i) Unit Type: Fixed Roof Tank Equipped with Internal 270.14(a); 270.27; When floating roof is resting on leg supports, filling, O-5f(1)NA 264.1084(e) (2),(3) emptying, or refilling shall be continuous and completed as Floating Roof soon as practical; when roof is floating, automatic bleeder vents shall be set closed; and prior to filling, openings in roof shall be secured. Inspect the floating roof. Tank Equipped with an External Floating Roof 270.14(a); 270.27; When floating roof is resting on leg supports, filling, O-5f(2)NA 264.1084(f) emptying, or refilling shall be continuous and completed as soon as practical; when closure device is open for access, (2),(3)equipment and devices shall be closed and secured as specified; and seals shall provide a continuous and complete cover as specified. Inspect the floating roof.

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS SECTION O. SUBPART CC AIR EMISSION STANDARDS See Attached Section and Federal Review Location in Comment Requirement Regulation Consideration^a Application^b **Number**^c Tank Vented Through Closed-Vent System to a 270.14(a); 270.27; O-5f(3)When hazardous waste is in tank, fixed roof shall be NA Control Device 264.1084(g) installed with closure devices secured in closed position (2), (3)and vapor headspace underneath fixed roof vented to control device, except as specified. Inspect and monitor the air emission control equipment. When hazardous waste is in tank, it shall be operated as 270.14(a); 270.27; O-5f(4)Pressure Tank NA closed system that does not vent to atmosphere, except to 264.1084(h) avoid an unsafe condition. (2), (3)270.27(a)(3), Enclosure shall be operated in accordance with 52.741, Tank Located Inside an Enclosure that is NA O-5f(5)Appendix B, and comply with applicable closed-vent Vented Through a Closed-Vent System to an 264.1084(i) requirements. Safety devices may be operated as needed. **Enclosed Combustion Control Device** Inspect and monitor the system and control device. Shall be Conducted Using Continuous Hard-270.14(a): 270.27: Requirements do not apply under the conditions specified O-5f(6) NA Piping or Another Closed System that Does Not 264.1084(j)(1) at 264.1084(j)(2). Allow Exposure of Hazardous Waste to Environment Owner/Operators Shall Install Either of the 270.14(a); 270.27; NA O-6a Following Controls: 264.1085(b)(d) 270.27(a)(4); O-6a(1) Floating Membrane Cover Floating membrane cover shall float on liquid surface and NA form continuous barrier over entire liquid; be made of 264.1085 (b)(1), (c)(1)synthetic membrane material; contain no visible open spaces; and be equipped with closure devices and cover drains as needed. 270.14(a): 270.27: Cover/closure devices shall form continuous barrier over Cover That Is Vented Through a Closed-Vent NA O-6a(2)264.1085 entire liquid surface; be equipped with closure device; be System to a Control Device (b)(2) and (d)(2)made of suitable material; and be designed in compliance with 264.1087. Owner/Operators Shall Adhere to the Following 270.14(a); 270.27; NA O-6b 264.1085 Operating Procedures for Each Control Type: (c), (d)Floating Membrane Cover 270.14(a); 270.27; When hazardous waste is in surface impoundment, floating NA O-6b(1) 264.1085(c) membrane cover shall float on liquid, and each closure device shall be secured in closed position, except as (2), (3)specified. Inspect the cover.

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

	Section and Requirement	Federal Regulation	Review Consideration ^a	Location in Application ^b	See Attached Comment Number ^c
O-6b(2)		270.14(a); 270.27; 264.1085(d) (2), (3)	When hazardous waste is in surface impoundment, cover shall be installed with each closure device secured in closed position and vapor headspace underneath the cover vented to control device, except as specified. Closed-vent system and control device shall be operated in accordance with 264.1087. Inspect and monitor the control device.	NA	
O-7	- C	270.14(a); 270.27; 264.1085(c)(1)	Requirements do not apply under conditions specified at 264.1085(e)(2).	NA	
O-8a		270.14(a); 270.27; 264.1086(b)(1)		Section O-1	
O-8a(1)		270.14(a); 270.27; 264.1086(b)(1)(i)		Section O-1	
O-8a(2)		270.14(a); 270.27; 264.1086(b)(1)(ii)		Section O-1	
O-8ab	Container Level 2 Standards Apply to Container with a Design Capacity Greater than 0.46 m ³ that is in Light Material Service	270.14(a); 270.27; 264.1086(b)(1) (iii)		NA	
O-8c	Container Level 3 Standards Apply to Container with Design Capacity Greater than 0.1 m ³ that is Used for Stabilization	270.14(a); 270.27; 264.1086(b)(2)	Level 3 standards apply at those times during waste stabilization process when hazardous waste in container is exposed to atmosphere.	NA	
O-9	Identify Each Container Area Subject to Subpart CC	270.27(a)(2)		Section O-1	
O-9a		270.27(a)(2); 264.1086(c) (1)		Section O-1	
O-9a(1)		270.27(a)(2); 264.1086(c) (1)(i),(f)	Container shall meet Part 178 or Part 179 and be managed in accordance with Parts 107, 172, 173, and 180.	Section O-1	
O-9a(2)		270.27(a)(2); 264.1086(c) (1)(ii),(2)	Container shall be equipped with covers and closure devices, as needed.	NA	
O-9a(3)	Open-Top Container Equipped with Organic- Vapor Suppressing Barrier	270.27(a)(2); 264.1086(c) (1)(iii),(2)	Container shall be equipped with covers and closure devices, as needed.	NA	
O-9b	Controls is Defined as One of the Following:	270.27(a)(2); 264.1086 (d)(1)(f),(g)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION O. SUBPART CC AIR EMISSION STANDARDS

Section and Requirement		Federal Regulation			See Attached Comment Number ^c
O-9b(1)	Container that Needs Department of Transportation (DOT) Regulations on Packaging	270.27(a)(2); 264.1086(d)(1) (i),(f)	Containers shall meet Part 178 or Part 179, and be managed in accordance with Parts 107, 172, 173, and 180.	NA	
O-9b(2)	Container that Operates with No Detectable Organic Emissions	270.27(a)(2); 264.1086(d)(1) (ii),(g)	and 265.1084(d) to determine no detectable organic emissions.	NA	
O-9b(3)	Container that has been Demonstrated Within the Preceding 12 Months to be Vapor-Tight	270.27(a)(2); 264.1086(d)(1) (iii) and (h)	Owner/operator shall follow procedures at 264.1086(h) and Part 60, Appendix A, Method 27 to demonstrate container is vapor-tight.	NA	
O-9c	Container Level 3. A Container Using Level 3 Controls is Defined as One of the Following:	270.27(a)(2); 264.1086(e) (1), (2)		NA	
O-9c(1)	Container that is Vented Directly Through a Closed-Vent System to a Control Device	270.27(a)(2); 264.1086(e) (1)(i)	The closed-vent system and control device shall be designed in accordance with 264.1087. Safety devices may be installed as needed.	NA	
O-9c(2)	Container that is Vented Inside an Enclosure Which is Exhausted Through a Closed-Vent System to a Control Device	270.27(a)(2); 270.27(a)(3); 264.1086(e) (1)(ii)	The container/enclosure must be designed in accordance with 52.741, Appendix B and 264.1087. Safety devices may be installed as needed.	NA	
O-10a	Container Level 1. Owner/Operators Shall Install Covers and Closure Devices for the Container and Secure and Maintain Each Closure Device in Closed Position, Except as Specified	270.14(a); 270.27; 264.1086(c) (3), (4)	The closure device or cover may be opened for the purpose of adding or removing hazardous waste or for maintenance or to avoid unsafe conditions.	Section O-1	
O-10b	Container Level 2. Owner/Operator Shall Install All Covers and Closure Devices for the Container and Maintain and Secure Each Closure Device in Closed Position, Except as Specified	270.14(a); 270.27; 264.1086(d)(2), (3)	Transfer of hazardous waste in or out of container shall be conducted in such a manner as to minimize exposure to atmosphere, as practical. The closure device or cover may be opened for the purpose of adding or removing hazardous waste or for maintenance or to avoid unsafe conditions.	NA	
O-10c	Container Level 3. Owner/Operators Shall Operate the System in Accordance with 52.741, Appendix B; 264.1087; and 265.1081, as Needed	270.14(a); 270.27; 264.1086(e) (3),(4), (5)		NA	
O-11a	Standards Apply to Each Closed-Vent System and Control Device Used to Control Air Emissions under Part 264; Subpart CC	270.14(a); 270.27; 264.1087(a)		NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS SECTION O. SUBPART CC AIR EMISSION STANDARDS See Attached Section and Federal Review Location in Comment Requirement Regulation Consideration^a Application^b Number^c 270.27(a)(5); O-11(b) Closed-Vent Systems Shall: NA 264.1087(b) Route Gases, Vapors, and Fumes to Control O-11b(1)270.27(a): NA 264.1087(b)(1) Device Be Designed and Operated in Accordance with 270.27(a); The Subpart AA standards for closed-vent systems must be NA O-11b(2)264.1087(b)(2) 264.1033(k) satisfied. Meet the Requirements for Bypass Devices. if Each bypass device shall be equipped with either a flow 270.27(a); NA O-11b(3)indicator or a seal or locking device. **Applicable** 264.1087(b)(3) The Control Device Shall be One of the O-12a 270.27(a)(5); NA Following: 264.1087(c)(1) O-12a(1) A Control Device Designed and Operated to 270.27(a)(5); Owner/operator shall demonstrate compliance using either Reduce Total Organic Content on Inlet Vapor 264.1087(c) performance test or design analysis, except as specified. Stream Vented to the Control Device by at (1)(i)Least 95 Percent by Weight An Enclosed Combustion Device Owner/operator shall demonstrate compliance using either NA O-12a(2)270.27(a)(5); 264.1087(c) performance test or design analysis, except as specified. Control device shall be designed and operated in (1)(ii)accordance with 264.1033(c). Owner/operator shall demonstrate compliance using either NA 270.27(a)(5); O-12a(3)A Flare performance test or design analysis, except as specified. 264.1087(c) (1)(iii) O-12b Each Closed-Vent System and Control Device 270.27(a)(5); Planned routine maintenance of control device shall not NA Shall Comply with the Operating Requirements 264.1087(c)(2) exceed 240 hours per year; system malfunctions shall be corrected as soon as practicable; and system shall be of 264.1087(c)(2)operated such that gases, vapors, or fumes are not actively vented to control device during planned maintenance or system malfunction, except as specified. A Carbon Adsorption System Carbon replacement and removal shall follow prescribed NA O-12c 270.27(a)(5);

264.1087(c)(3)

264.1087(c)(4)

270.27(a)(5);

requirements in 264.1033(g), (h), and (n).

proper operation and maintenance.

264.1033(j) requires the owner/operator to prepare

documentation describing the control device's operation

and to identify the process parameter(s) that indicate its

Reviewer:				
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NA

Flare)

O-12d

Each Control Device Shall be Operated and

Except for Certain Devices Identified (e.g.,

Maintained in Accordance with 264.1033(j),

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	Section and Requirement	Federal Regulation	Review Consideration ^a	Location in Application ^b	See Attached Comment Number ^c			
O-12e	The Owner/Operator Shall Demonstrate that a Control Device Achieves the Performance Requirements Using a Performance Test or Design Analysis, Except for Specific Devices Identified (e.g., flare)	270.27(a)(5); 264.1087(c)(5)	For performance test, owner/operator shall use the test specified at 264.103(c). For design analysis, owner/operator shall use an analysis that meets requirements specified at 264.1035(b)(4)(iii). In addition, the U.S. Environmental Protection Agency (EPA) prescribes unit-specific performance demonstration requirements for certain unit types at 264.1087(c)(5).	NA				
O-12f	If Design Analysis is Not Sufficient, then a Performance Test is Required	270.27(a)(5); 264.1087(c) (6)	The EPA regional administrator shall determine if a performance test is required to demonstrate control device's performance.	NA				
O-12h	Inspect and Monitor the Control Device	270.27(a)(5); 264.1087(c) (7)	Control devices shall be inspected and monitored at least once a day.	NA				
O-13	Each Tank, Surface Impoundment and Container Shall be Inspected, Monitored, and Repaired in Accordance with the 264 Subpart CC Requirements	270.27; 264.1088	Inspection, monitoring and repair requirements specific to each unit are located in the standards sections of the regulation 264.1084 through 264.1087. Owner/operator shall develop and implement written plan and schedule to perform inspections and monitoring required. The plan and schedule shall be incorporated into facility's inspection plan.	NA				
O-14	Each Owner/Operator Shall Comply with the Recordkeeping Requirements Specified at 264.1089	270.27; 264.1089	Except as specified, records shall be maintained in facility's operating record for a minimum of 3 years. Various records are required depending on the type of unit and control device.	NA				
O-14a	Each of the Following Owner/Operators Shall Comply with the Reporting Requirements at 264.1090:	270.27; 264.1090		NA				
O-14a(1)	Each Owner/Operator Managing Hazardous Waste in a Tank, Surface Impoundment, or Container Exempted from Using Air Emission Controls under 264.1082(c)	270.27; 264.1090(a)	Owner/operator shall report to EPA each noncompliance identified under 264.1082(c).	NA				
O-14a(2)	Each Owner/operator Using Air Emission Controls on a Tank in Accordance with 264.1084(c)	270.27; 264.1090(b)	Owner/operator shall report to EPA each noncompliance identified under 264.1084(B).	NA				
O-14a(3)	Each Owner/operator Using a Control Device in Accordance with 264.1087	270.27; 264.1090 (c),(d)	Owner/operator shall submit semiannual written report to EPA, except as specified.	NA				
O-14b	Each Owner/Operator shall Provide an Emission Monitoring Plan	270.27(a)(6)	Applies to Method 21 and control device monitoring methods.	NA				

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS SECTION O. SUBPART CC AIR EMISSION STANDARDS					
	Section and Requirement	Federal Regulation	Review Consideration ^a	Location in Application ^b	See Attached Comment Number ^c
O-14c	Subpart CC Implementation Plan		Required when facility cannot comply with Subpart CC by date of permit issuance.	NA	

Notes:

Considerations in addition to the requirements presented in the regulations.

For each requirement, this column must indicate one of the following: NA for not applicable, IM for information missing, or the exact location of the information in the application. If application is deficient in an area, prepare a comment describing the deficiency, attach it to the checklist, and reference the comment in this column.